

Environmental Health Response

Satellite Conference and Live Webcast
Tuesday, December 1, 2009
11:00 a.m. - 2:00 p.m. Central Time

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Faculty

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Environmental Health in Disaster Events



Environmental Health in Disaster Events



Citizen's Priorities

- Family/safety/security
- Shelter
- Power
- Drinking water
- Food
- Ice

Alternate/Alternative Care Site



Flooded Methodist Hospital, New Orleans, following levee failure after Hurricane Katrina, August 29, 2005. As of February 22, 2006, the hospital remains closed. Photo courtesy of the Louisiana Hospital Association (<http://www.lhaonline.org/>), as per Dan Silverman (March 12, 2006), manager of Lessons Learned Information Sharing (www.lis.dhs.gov).

Shelters



Environmental Health Functions

- EH practitioners protect the public from hazards in the environment
 - Food
 - Water
 - Waste
 - Vector control
 - Built environment

Reasons for Concern

- Close living quarters
- Stressed population
- Disrupted protection systems
- Health care maybe limited
- Increased demands on facility

Reasons for Concern



Reliant Park - Houston, Texas

Types of Shelters

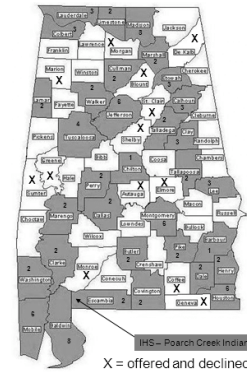
- Mass care shelter
 - Self sufficient
- Medical needs shelter
 - Physical, mental, cognitive impairment, or sensory disabilities
- Comfort care centers
 - Limited (supportive) healthcare

Types of Shelters

- Alternate/Alternative care shelters
- Homeless shelters

Bus Conversion Kits

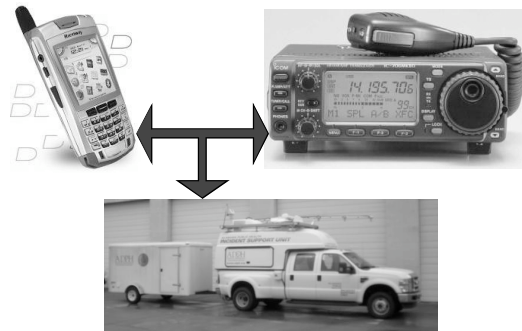
- 36 county EMAs + PBCI
- 105 total Bus Conversion Kits



AMBLUBUS



Interoperable Communications



Potable Water



Environmental Health Functions

- Ensure adequate supply of safe water is available to the public
- Prevent waterborne diseases
- Provide information on water safety and supply
- Conduct interventions needed for food service and other industries

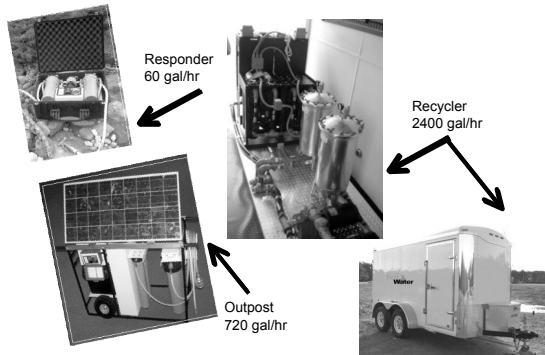
Reasons for Concern

- Aging water and wastewater infrastructure
- Population growth
- Frequency of natural disasters
- Terrorism threats
- Well construction oversight

Reasons for Concern



Water Purification Units



Wastewater



Impact on Water Systems

- Physical damage
 - Treatment plants
 - Collection pipes
 - Onsite systems; septic tanks
- Loss-of-power effects
- Workforce affected

Impact on Water Systems



Environmental Health Functions

- Ensure proper wastewater disposal and treatment is provided
- Prevent diseases caused by improper handling of wastewater
- Prevent contamination of water supplies

Environmental Health Functions

- Provide information on wastewater treatment and handling
- Conduct interventions needed to protect the public from wastewater in food service and other industries

Reasons for Concern

- Aging water and wastewater infrastructure
- Population growth
- Frequency of natural disasters
- Raw sewage releases

Reasons for Concern



Emergency Waste Collection



Tanks



Bladders

Food Safety



Environmental Health Functions

- Ensure safe food supply through planning
- Assure safe food at shelters and mass feeding sites
- Ensure safe operation of licensed food facilities
- Provide information on food safety
- Conduct interventions

Reasons for Concern

- Disrupted utilities (power, water, wastewater)
- Increased potential for food contamination
- Dependence on emergency food supplies
- Donated foods
- Food salvage
- Affected workforce for industry, regulators, and responders

Mass Feeding Operations

- Evacuation Centers/Responders



Solid Waste and Hazardous Materials



Environmental Health Functions

- Ensure protection of public health from hazardous materials and solid waste
- Assess and rectify waste issues with response partners
- Assure adequate collection, disposal, or treatment of waste products

Environmental Health Functions

- Provide information to the public on health risks associated with waste releases or debris
- Conduct interventions as needed

Reasons for Concern



Categories of Waste Generated

- Hazardous waste
 - Household hazardous waste
 - Pesticides
 - Cleaning products
 - Gardening products
 - Automotive products

Categories of Waste Generated

- Industrial chemicals
 - Oil and hazardous substances
 - School or private laboratory materials
 - Commercial cleaners, auto repair, etc.

Categories of Waste Generated



Bio-Hazards and Infectious Waste



Questions?